

Sequence Listing

<110> TAMURA, Ryoji
 <120> Non-B, Non-C, Non-G Hepatitis Virus Gene, Polynucleotide,
 Polypeptide, Virus Particle, Method for Isolating Virus Particle, and
 Method for Detecting Virus
 <130> OP763-PCT
 <150> JP 10-82962
 <151> 1998-03-13
 <150> JP 9-314196
 <151> 1997-10-09
 <150> JP 9-233246
 <151> 1997-07-25
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 <222> 107..712

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 tggaggaccc gaagacgcag acctgctaga cgccgtggcc gccgcagaaa cgtaaggaga 720
 cgccgcagag gagggagggtg gaggaggaga tataggagat ggaaaagaaa gggcaggcgc 780
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acaacaggag	catatacaga	cataaagtac	aatccattca	cagacagagg	agaaggcaac	1920
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 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Synthetic DNA

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<210> 3
 <211> 20
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Synthetic DNA

<400> 3	
tgactgtgct aaagcctcta	20

<210> 4
 <211> 20
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Synthetic DNA

<400> 4	
catacacatg aatgccaggc	20

<210> 5
 <211> 20
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Synthetic DNA

<400> 5

gtacttcttg ctggtgaaat

20

<210> 6

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 6

acagacagag gagaaggcaa catg

24

<210> 7

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 7

ggcaacatgy trtggataga ctgg

24

<210> 8

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 8

ctggcatttt accatttcca aagtt

25

<210> 9

<211> 770

<212> PRT

<213> non-B, non-C, non-G hepatitis virus

<400> 9

Met Ala Tyr Gly Trp Trp Arg Arg Arg Arg Arg Arg Trp Arg Arg

1 5 10 15

Trp Arg Arg Arg Pro Trp Arg Arg Arg Trp Arg Thr Arg Arg Arg

20 25 30

Arg Pro Ala Arg Arg Arg Gly Arg Arg Arg Asn Val Arg Arg Arg

	35	40	45
Arg Arg Gly Gly Arg Trp Arg Arg Arg Tyr Arg Arg Trp Lys Arg			
	50	55	60
Lys Gly Arg Arg Arg Lys Lys Ala Lys Ile Ile Ile Arg Gln Trp			
	65	70	75
Gln Pro Asn Tyr Arg Arg Arg Cys Asn Ile Val Gly Tyr Ile Pro			
	80	85	90
Val Leu Ile Cys Gly Glu Asn Thr Val Ser Arg Asn Tyr Ala Thr			
	95	100	105
His Ser Asp Asp Thr Asn Tyr Pro Gly Pro Phe Gly Gly Gly Met			
	110	115	120
Thr Thr Asp Lys Phe Thr Leu Arg Ile Leu Tyr Asp Glu Tyr Lys			
	125	130	135
Arg Phe Met Asn Tyr Trp Thr Ala Ser Asn Glu Asp Leu Asp Leu			
	140	145	150
Cys Arg Tyr Leu Gly Val Asn Leu Tyr Phe Phe Arg His Pro Asp			
	155	160	165
Val Asp Phe Ile Ile Lys Ile Asn Thr Met Pro Pro Phe Leu Asp			
	170	175	180
Thr Glu Leu Thr Ala Pro Ser Ile His Pro Gly Met Leu Ala Leu			
	185	190	195
Asp Lys Arg Ala Arg Trp Ile Pro Ser Leu Lys Ser Arg Pro Gly			
	200	205	210
Lys Lys His Tyr Ile Lys Ile Arg Val Gly Ala Pro Arg Met Phe			
	215	220	225
Thr Asp Lys Trp Tyr Pro Gln Thr Asp Leu Cys Asp Met Val Leu			
	230	235	240
Leu Thr Val Tyr Ala Thr Ala Ala Asp Met Gln Tyr Pro Phe Gly			
	245	250	255
Ser Pro Leu Thr Asp Ser Val Val Val Asn Phe Gln Val Leu Gln			
	260	265	270
Ser Met Tyr Asp Lys Thr Ile Ser Ile Leu Pro Asp Glu Lys Ser			
	275	280	285
Gln Arg Glu Ile Leu Leu Asn Lys Ile Ala Ser Tyr Ile Pro Phe			
	290	295	300
Tyr Asn Thr Thr Gln Thr Ile Ala Gln Leu Lys Pro Phe Ile Asp			
	305	310	315
Ala Gly Asn Val Thr Ser Gly Ala Thr Ala Thr Thr Trp Ala Ser			
	320	325	330
Tyr Ile Asn Thr Thr Lys Phe Thr Thr Ala Thr Thr Thr Thr Tyr			
	335	340	345
Ala Tyr Pro Gly Thr Asn Arg Pro Pro Val Thr Met Leu Thr Cys			
	350	355	360

Asn Asp Ser Trp Tyr Arg Gly Thr Val Tyr Asn Thr Gln Ile Gln	365	370	375
Gln Leu Pro Ile Lys Ala Ala Lys Leu Tyr Leu Glu Ala Thr Lys	380	385	390
Thr Leu Leu Gly Asn Thr Phe Thr Asn Glu Asp Tyr Thr Leu Glu	395	400	405
Tyr His Gly Gly Leu Tyr Ser Ser Ile Trp Leu Ser Pro Gly Arg	410	415	420
Ser Tyr Phe Glu Thr Thr Gly Ala Tyr Thr Asp Ile Lys Tyr Asn	425	430	435
Pro Phe Thr Asp Arg Gly Glu Gly Asn Met Leu Trp Ile Asp Trp	440	445	450
Leu Ser Lys Lys Asn Met Asn Tyr Asp Lys Val Gln Ser Lys Cys	455	460	465
Leu Ile Ser Asp Leu Pro Leu Trp Ala Ala Ala Tyr Gly Tyr Val	470	475	480
Glu Phe Cys Ala Lys Ser Thr Gly Asp Gln Asn Ile His Met Asn	485	490	495
Ala Arg Leu Leu Ile Arg Ser Pro Phe Thr Asp Pro Gln Leu Leu	500	505	510
Val His Thr Asp Pro Thr Lys Gly Phe Val Pro Tyr Ser Leu Asn	515	520	525
Phe Gly Asn Gly Lys Met Pro Gly Gly Ser Ser Asn Val Pro Ile	530	535	540
Arg Met Arg Ala Lys Trp Tyr Pro Thr Leu Phe His Gln Gln Glu	545	550	555
Val Leu Glu Ala Leu Ala Gln Ser Gly Pro Phe Ala Tyr His Ser	560	565	570
Asp Ile Lys Lys Val Ser Leu Gly Met Lys Tyr Arg Phe Lys Trp	575	580	585
Ile Trp Gly Gly Asn Pro Val Arg Gln Gln Val Val Arg Asn Pro	590	595	600
Cys Lys Glu Thr His Ser Ser Gly Asn Arg Val Pro Arg Ser Leu	605	610	615
Gln Ile Val Asp Pro Lys Tyr Asn Ser Pro Glu Leu Thr Phe His	620	625	630
Thr Trp Asp Phe Arg Arg Gly Leu Phe Gly Pro Lys Ala Ile Gln	635	640	645
Arg Met Gln Gln Gln Pro Thr Thr Thr Asp Ile Phe Ser Ala Gly	650	655	660
Arg Lys Arg Pro Arg Arg Asp Thr Glu Val Tyr His Ser Ser Gln	665	670	675
Glu Gly Glu Gln Lys Glu Ser Leu Leu Phe Pro Pro Val Lys Leu			

	680		685		690
Leu Arg Arg Val	Pro Pro Trp Glu Asp	Ser Gln Gln Glu Glu Ser			
	695		700		705
Gly Ser Gln Ser	Ser Glu Glu Glu Thr	Gln Thr Val Ser Gln Gln			
	710		715		720
Leu Lys Gln Gln	Leu Gln Gln Gln Arg	Ile Leu Gly Val Lys Leu			
	725		730		735
Arg Leu Leu Phe	Asn Gln Val Gln Lys	Ile Gln Gln Asn Gln Asp			
	740		745		750
Ile Asn Pro Thr	Leu Leu Pro Arg Gly	Gly Asp Leu Ala Ser Leu			
	755		760		765
Phe Gln Ile Ala Pro					
	770				

<210> 10
 <211> 202
 <212> PRT
 <213> non-B, non-C, non-G hepatitis virus

<400> 10

Met Ala Glu Phe Ser Thr Pro Val Arg Ser Gly Glu Ala Thr Glu			
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Gly Asp Leu Arg Val Pro Arg Ala Gly Ala Glu Gly Glu Phe Thr			
	20	25	30
His Arg Ser Gln Gly Ala Ile Arg Ala Arg Asp Trp Pro Gly Tyr			
	35	40	45
Gly Gln Gly Ser Glu Lys Ser Met Phe Ile Gly Arg His Tyr Arg			
	50	55	60
Lys Lys Arg Ala Leu Ser Leu Cys Ala Val Arg Thr Thr Lys Lys			
	65	70	75
Ala Cys Lys Leu Leu Ile Val Met Trp Thr Pro Pro Arg Asn Asp			
	80	85	90
Gln His Tyr Leu Asn Trp Gln Trp Tyr Ser Ser Ile Leu Ser Ser			
	95	100	105
His Ala Ala Met Cys Gly Cys Pro Asp Ala Val Ala His Phe Asn			
	110	115	120
His Leu Ala Ser Val Leu Arg Ala Pro Gln Asn Pro Pro Pro Pro			
	125	130	135
Gly Pro Gln Arg Asn Leu Pro Leu Arg Arg Leu Pro Ala Leu Pro			
	140	145	150
Ala Ala Pro Glu Ala Pro Gly Asp Arg Ala Pro Trp Pro Met Ala			
	155	160	165
Gly Gly Ala Glu Gly Glu Asp Gly Gly Ala Gly Gly Asp Ala Asp			

	170	175	180
His Gly Gly Ala	Ala Gly Gly Pro Glu Asp Ala Asp Leu Leu Asp		
	185	190	195
Ala Val Ala Ala	Ala Glu Thr		
	200		

<210> 11

<211> 500

<212> DNA

<213> non-B, non-C, non-G hepatitis virus

<400> 11

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gaggagaagg	caacatgtta	tgatagact	ggctaagcaa	aaaaaacatg	aactatgaca	120
aagtacaaag	taaagtctta	atatcagacc	tacctctatg	ggcagcagca	tatggatatg	180
tagaattttg	tgcaaaaagt	acaggagacc	aaaacataca	catgaatgcc	aggctactaa	240
taagaagtcc	ctttacagac	ccacaactac	tagtacacac	agaccccaca	aaaggctttg	300
ttccttactc	tttaaacttt	ggaaatggta	aatgccagg	aggtagtagt	aatgtgccta	360
ttagaatgag	agctaaatgg	tatccaacat	tatttcacca	gcaagaagta	ctagaggcct	420
tagcacagtc	aggccccttt	gcataccact	cagacattaa	aaaagtatct	ctgggtatga	480
aataccgttt	taagtggatc					500

<210> 12

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 12

aaggatccgt	cgacatcgat	aatacggggg	gggggggggg	g	41
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<210> 13

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 13

aaggatccgt	cgacatcgat	aatacgaaaa	aaaaaaaaaa	a	41
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<210> 14

9/27

<211> 41
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA

<400> 14
aaggatccgt cgacatcgat aatacgtttt tttttttttt t 41

<210> 15
<211> (20) 41
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA

<400> 15
aaggatccgt cgacatcgat aatacgcccc cccccccccc c 41

<210> 16
<211> 803
<212> DNA
<213> non-B, non-C, non-G hepatitis virus

<400> 16
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attaaagcca tttatagatg caggcaatgt aacatcaggc gcaacagcaa caacatgggc 120
atcatacata aacacaacca aatttactac agcaaccaca acaacttatg catatccagg 180
caccaacaga cccccagtaa ctatgttaac ctgtaatgac tcctggtaca gaggaacagt 240
atataacaca caaattcaac agttaccaat aaaagcagct aaattatact tagaggcaac 300
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actgtacagc tcaatatggc tatcccctgg tagatcttac tttgaaacaa caggagcata 420
tacagacata aagtacaatc cattcacaga cagaggagaa ggcaacatgt tatggataga 480
ctggctaagc aaaaaaaaca tgaactatga caaagtacaa agtaaatgct taatatcaga 540
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actagtacac acagacccca caaaaggctt tgttccttac tctttaaact ttggaaatgg 720
taaaatgcca ggaggtagta gtaatgtgcc tattagaatg agagctaaat ggtatccaac 780
attatttcac cagcaagaag tac 803

<210> 17
<211> 1205
<212> DNA

<213> non-B, non-C, non-G hepatitis virus

<400> 17

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gccaggaggt agtagtaatg tgcctattag aatgagagct aaatggatc caacattatt	180
tcaccagcaa gaagtactag aggccttagc acagtcaggc ccctttgcat accactcaga	240
cattaaaaaa gtatctctgg gtatgaaata ccgttttaag tggatctggg gtggaaaccc	300
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ccctagaagc ttacaaatcg ttgacccgaa atacaactca ccggaactca cattccatac	420
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aacaactact gacatttttt cagcaggccg caagagaccc aggagggaca ccgagggtgta	540
ccactccagc caagaagggg agcaaaaaga aagcttactt ttccccccag tcaagctcct	600
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ccctgggccc ccaaggaaaa ccagtaccgt gttaaacttta aacttggatt ccaataaagc	1020
taggccgtgg gactttcact tgtcgggtgc tgcttataaa agtaactaag cactccgagc	1080
gaagcgagga gtgcgaccct tgggggctca acgccttcgg agccgcgcgc tacgccttcg	1140
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tcggg	1205

<210> 18

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 18

ggtgcctgga tatgcataag

20

<210> 19

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 19

tgcccatggt gttgctgttg

20

<210> 20

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<220>

<221> misc_difference

<222> 27..31

<223> n=a, t, g or c

<400> 20

aaggatccgt cgacatcgat aatacgnnnn ng

32

<210> 21

<211> 631

<212> DNA

<213> non-B, non-C, non-G hepatitis virus

<400> 21

tatgactaca gacaaattta ctttaagaat tctgtatgac gagtacaaaa ggtttatgaa	60
ctactggaca gcatctaacg aagacctaga cctttgtaga tatctaggag taaacctgta	120
ctttttcaga caccagatg tagattttat cataaaaatt aataccatgc ctccttttct	180
agacacagaa ctcacagccc ctagcataca cccaggcatg ctagccctag acaaaagagc	240
aagatggata cctagcttaa aatctagacc gggaaaaaaa cactatatta aaataagagt	300
aggggcacca agaatgttca ctgataaatg gtacccccaa acagatcttt gtgacatggg	360
gcttctaact gtctatgcaa ccgcagcgga tatgcaatat ccgttcggct caccactaac	420
tgactctgtg gttgtgaact tccaggttct gcaatccatg tatgataaaa caattagcat	480
attaccagac gaaaaatcac aaagagaaat tctacttaac aagatagcaa gttacattcc	540
cttttataat accacacaaa ctatagccca attaaagcca tttatagatg caggcaataa	600
accatcaggc acaacagcaa caacatgggc a	631

<210> 22

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 22

tcacttgtcg gtgtctgctt

20

<210> 23
 <211> 20
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Synthetic DNA

<400> 23
 ctaagcactc cgagcgtagc

20

<210> 24
 <211> 614
 <212> DNA
 <213> non-B, non-C, non-G hepatitis virus

<400> 24
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 cgcgctacgc cttcgggtgc gcgcggcacc tcagaccccc gctcgtgctg acacgctcgc 120
 gcgtgtcaga ccacttcggg ctgcgggggg tcgggaaatt tactaaacag actccgagtt 180
 gccattggac tcaggagcta tgaatcagta acgaaagtga gtggggccag acttcgccat 240
 aaggccttta tcttcttgcc atttgtcagt aacaggggtc gccatagact tcggcctcca 300
 ctttaccttg taaaaactac caaaatggcc gttccagtga cgtcacagcc gccattttaa 360
 gtagctgacg tcaaggattg acgtaaaggt taaagggtcat cctcggcgga agctacacaa 420
 aatggtggac aacatcttcc ggggtcaaagg ttgtgcgtac gtcacaagtc acgtggaggg 480
 gacccgctgt aaccggaag taggccccgt cacgtgactt accacgtgtg tacacgtcac 540
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 aaaaaaccgt cggc 614

<210> 25
 <211> 302
 <212> DNA
 <213> non-B, non-C, non-G hepatitis virus

<400> 25
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 agtaggctac atccctgtac taatatgtgg cgaaaatact gtcagcagaa actatgccac 180
 acactcagac gataccaact acccaggacc ctttgggggg ggtatgacta cagacaaatt 240
 tactttaaga attctgtatg acgagtacaa aaggtttatg aactactgga cagcatctaa 300
 cg 302

<210> 26

<211> 831

<212> DNA

<213> non-B, non-C, non-G hepatitis virus

<400> 26

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at tt tt gct ac gtc act aacc ac gt gac acc cac agg ccaa cc ga at gct a tgc at ccat      60
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cac gcc cgt c cgc agc ggt g aag cc ac gga ggg ag at ct c cgc gt ccc ga ggg cgg ggt gc    180
cga aggt gag tt tac ac acc ga agt ca agg gg ca at t cg ggt cgg gact gg cc ggg gta      240
tgg gca aggc tct gaaaaa a gcat gtt tat tgg cagg cat tac agaa aga aa aggg cg ct      300
gt cact gt gt gct gt gca ga ca caa aaga a gg ct tgc aaa ct act aat ag ta at gt gg ac    360
ccc ac ct gc aat gat ca ac act ac ct ta a ct gg ca at gg tact ca ag ta tact tag ct c     420
cc ac gt gct at gt gc ggg gt gt ccc gac gc tgc gct cat tt ta at cat c tt gct tct gt     480
gct tct gt gcc cc gaaa aacc cacc cct cc cgg tcccc ag cg aa ac ct gc cc ct cc gac g     540
gct gcc ggt ct ccc ggt g cgc ag ggc ggg agat ag ag cacc at ggc ct at ggc              600
tg gt ggc gcc ga ag gaga ag ac ggt ggc gc ag gt gg ag ac gc ag acc at g gag gc gcc gc    660
tg gagg acc ga ag ac gc ag acct gct aga cgc cgt ggc gcc gcc gc agaaa cg ta ag gaga     720
cg cc gc ag ag gag gg aggt g gag gagg aga tat ag gaga t gg aaa agaaa ggg cagg cg c     780
ag aaaaaa ag ct aaaa ta at aata ag aca a tgg ca acc aa act ac aga ag g              831

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<210> 27

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 27

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20

<210> 28

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 28

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cg tt ag at gc tgc cc ag tag

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<210> 29

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 29

cgccacatat tagtacaggg

20

<210> 30

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 30

ccttctgtag ttggttgcc

20

<210> 31

<211> 467

<212> DNA

<213> non-B, non-C, non-G hepatitis virus

<400> 31

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ccctagacaa aagagcaaga tggataccta gcttaaaatc tagaccggga aaaaaacact	120
atattaaaat aagagtaggg gcaccaaaaa tgttactga taaatggtac ccccaaacag	180
atctttgtga catggtgctt ctaactgtct atgcaaccgc agcggatatg caatatccgt	240
tcggctcacc actaactgac tctgtggttg tgaacttcca ggttctgcaa tccatgtatg	300
ataaaacaat tagcatatta ccagacgaaa aagaagaaag agcaaatacta cttagcaga	360
taacaagtta cattcccttt tataatacca cacaaactat agcccaatta aagccattta	420
tagatgcagg caatgtaaca tcaagcaca cagcaacaac atgggca	467

<210> 32

<211> 748

<212> DNA

<213> non-B, non-C, non-G hepatitis virus

<400> 32

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ggtctacgtc ctcatataag taagtgcact tccgaatggc tgagttttcc acgcccgtcc	120
gcagcggtag agccacggag ggagatctcc gcgtcccag ggcgggtgcc gaaggtagt	180
ttacacaccg aagtcaaggg gcaattcggg ctcgggactg gccgggctat gggcaaggct	240
ctgaaaaaag catgtttatt ggcaggcatt acagaaagaa aaggcgctg tcactgtgtg	300

ctgtgcgaac aacaaagaag gcttgcaaac tactaatagt aatgtggacc ccacctcgca	360
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tcccggctgc gccagaggcg cccggagata gagcaccatg gcctatggct ggtggcgccg	600
aaggagaaga cggtagcgca ggtggagacg cagaccatgg aggcgccgct ggaggacccg	660
aagacgcaga cctgctagac gccgtggccg ccgcagaaac gtaaggagac gccgcagagg	720
agggaggtgg aggaggagat ataggaga	748

<210> 33

<211> 197

<212> DNA

<213> non-B, non-C, non-G hepatitis virus

<400> 33

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ggagccgcgc gctacgcctt cggctgcgcg cggcacctca gacccccgct cgtgctgaca	120
cgctcgcgcg tgtcagacca cttcgggctc gcgggggctg ggaaatttac taaacagact	180
ccgagttgcc attggac	197

<210> 34

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 34

tgcccatggt gttgctgttg	20
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<210> 35

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 35

ccatgcctcc ttttctagac	20
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<210> 36

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 36

tctcctatat ctcctcctcc

20

<210> 37

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 37

tcactaacca cgtgacaccc

20

<210> 38

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 38

aaagtaacta agcactccga

20

<210> 39

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 39

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20

<210> 40

<211> 20

<212> DNA

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<210> 45
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 <212> DNA
 <213> non-B, non-C, non-G hepatitis virus

<400> 45
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 aacagagaca tgaatgccag rctactaata agaagtcctt ttacagaccc vcarctavta 180
 gtacacacag accccacwaa aggctttgtw ccytaytctk ta 222

<210> 46
 <211> 222
 <212> DNA
 <213> non-B, non-C, non-G hepatitis virus

<400> 46
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 ccyytrtrgrg cctcwgrta yggatwywcv gaatactgca gyaaagtwac aggagacwca 120
 aacagagarc acaactgyag atgtgthaty agaagcccct ayacagtrcc wcarctgyta 180
 gaycacaaca ayvscctyag rggwtaygtd ccvtayagya th 222

<210> 47
 <211> 222
 <212> DNA
 <213> non-B, non-C, non-G hepatitis virus

<400> 47
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 aacagagaca tgaacgccag agtagttata aggagcccct acactacacc tcaaatgata 180
 gaycacaaca ayvscctcag rggwtaygtd ccvtayagyt th 222

<210> 48
 <211> 222
 <212> DNA
 <213> non-B, non-C, non-G hepatitis virus

<400> 48
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 gcaggacacc taaatgccag actagtata agatgcccac acacatacc catgctagta 180

gaccactcaa acgacctaac aggctttgta ctgtacagca aa 222

<210> 49

<211> 222

<212> DNA

<213> non-B, non-C, non-G hepatitis virus

<400> 49

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ccactatggg cctccttctt tggatacgca gaattctgct ctaaaagcac aggagacaca 120
gccagagcat acaacgccag agtatgtgtt agatgtccct acacagagcc acagctgcta 180
aaccacaaca acccctctca ggggttcgtg ttttactcct ac 222

<210> 50

<211> 222

<212> DNA

<213> non-B, non-C, non-G hepatitis virus

<400> 50

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aaacacaaca atgacaactg gggctttgtc ccctatagcg aa 222

<210> 51

<211> 222

<212> DNA

<213> non-B, non-C, non-G hepatitis virus

<400> 51

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<210> 52

<211> 222

<212> DNA

<213> non-B, non-C, non-G hepatitis virus

<400> 52

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<210> 53

<211> 225

<212> DNA

<213> non-B, non-C, non-G hepatitis virus

<400> 53

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cargaycacg aractgtkkg catagtgttc gtgtgytgcc cctacactca rccrcccatg 180
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<210> 54

<211> 225

<212> DNA

<213> non-B, non-C, non-G hepatitis virus

<400> 54

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<210> 55

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 55

tggtggcgcc gaaggagaag acg 23

<210> 56

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 56

gctcttatgt acctcctgcg 20

<210> 57
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<400> 57
 ttgctacgt cactaaccac 20

<210> 58
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<400> 58
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<210> 59
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<400> 59
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<210> 61

<211> 20
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<210> 62
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<211> 761

<212> PRT

<213> non-B, non-C, non-G hepatitis virus

<400> 63

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Thr	Arg	Arg	Ala	Val	Arg	Gly	Leu	Gly	Arg	Arg	Arg	Lys	Pro	Arg	35	40	45	
Val	Arg	Arg	Arg	Arg	Arg	Thr	Arg	Arg	Arg	Thr	Tyr	Arg	Arg	Gly	50	55	60	
Trp	Arg	Arg	Arg	Arg	Tyr	Ile	Arg	Arg	Gly	Arg	Arg	Lys	Lys	Lys	65	70	75	
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Ile	Lys	Gly	Gly	Leu	Pro	Ile	Ile	Ile	Cys	Gly	Glu	Pro	Arg	Ala	95	100	105	
Ala	Phe	Asn	Tyr	Gly	Tyr	His	Met	Glu	Asp	Tyr	Thr	Pro	Gln	Pro	110	115	120	
Phe	Pro	Phe	Gly	Gly	Gly	Met	Ser	Thr	Val	Thr	Phe	Ser	Leu	Lys	125	130	135	
Ala	Leu	Tyr	Asp	Gln	Tyr	Leu	Lys	His	Gln	Asn	Arg	Trp	Thr	Phe	140	145	150	
Ser	Asn	Asp	Gln	Leu	Asp	Leu	Ala	Arg	Tyr	Arg	Gly	Cys	Lys	Leu	155	160	165	
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Asp	Leu	Cys	Lys	Val	Pro	Leu	Val	Ser	Ile	Thr	Ala	Thr	Ala	Ala	245	250	255	
Asp	Leu	Arg	Tyr	Pro	Phe	Cys	Ser	Pro	Gln	Thr	Asn	Asn	Pro	Cys	260	265	270	
Thr	Thr	Phe	Gln	Val	Leu	Arg	Lys	Asn	Tyr	Asn	Thr	Val	Ile	Gly	275	280	285	

Thr Ser Val Lys Asp Gln Glu Ser Thr Gln Asp Phe Glu Asn Trp	290	295	300
Leu Tyr Lys Thr Asp Ser His Tyr Gln Thr Phe Ala Thr Glu Ala	305	310	315
Gln Leu Gly Arg Ile Pro Ala Phe Asn Pro Asp Gly Thr Lys Asn	320	325	330
Thr Lys Gln Gln Ser Trp Gln Asp Asn Trp Ser Lys Lys Asn Ser	335	340	345
Pro Trp Thr Gly Asn Ser Gly Thr Tyr Pro Gln Thr Thr Ser Glu	350	355	360
Met Tyr Lys Ile Pro Tyr Asp Ser Asn Phe Gly Phe Pro Thr Tyr	365	370	375
Arg Ala Gln Lys Asp Tyr Ile Leu Glu Arg Arg Gln Cys Asn Phe	380	385	390
Asn Tyr Glu Val Asn Asn Pro Val Ser Lys Lys Val Trp Pro Gln	395	400	405
Pro Ser Thr Thr Thr Pro Thr Val Asp Tyr Tyr Glu Tyr His Cys	410	415	420
Gly Trp Phe Ser Asn Ile Phe Ile Gly Pro Asn Arg Tyr Asn Leu	425	430	435
Gln Phe Gln Thr Ala Tyr Val Asp Thr Thr Tyr Asn Pro Leu Met	440	445	450
Asp Lys Gly Lys Gly Asn Lys Ile Trp Phe Gln Tyr Leu Ser Lys	455	460	465
Lys Gly Thr Asp Tyr Asn Glu Lys Gln Cys Tyr Cys Thr Leu Glu	470	475	480
Asp Met Pro Leu Trp Ala Ile Cys Phe Gly Tyr Thr Asp Tyr Val	485	490	495
Glu Thr Gln Leu Gly Pro Asn Val Asp His Glu Thr Ala Gly Leu	500	505	510
Ile Ile Met Ile Cys Pro Tyr Thr Gln Pro Pro Met Tyr Asp Lys	515	520	525
Asn Arg Pro Asn Trp Gly Tyr Val Val Tyr Asp Thr Asn Phe Gly	530	535	540
Asn Gly Lys Met Pro Ser Gly Ser Gly Gln Val Pro Val Tyr Trp	545	550	555
Gln Cys Arg Trp Arg Pro Met Leu Trp Phe Gln Gln Gln Val Leu	560	565	570
Asn Asp Ile Ser Lys Thr Gly Pro Tyr Ala Tyr Arg Asp Glu Tyr	575	580	585
Lys Asn Val Gln Leu Thr Leu Tyr Tyr Asn Phe Ile Phe Asn Trp	590	595	600
Gly Gly Asp Met Tyr Tyr Pro Gln Val Val Lys Asn Pro Cys Gly			

	605		610		615
Asp Ser Gly Ile	Val Pro Gly Ser Gly	Arg Phe Thr Arg	Glu Val		
	620		625		630
Gln Val Val Ser	Pro Leu Ser Met Gly	Pro Ala Tyr Ile	Phe His		
	635		640		645
Tyr Phe Asp Ser	Arg Arg Gly Phe Phe	Ser Glu Lys Ala	Leu Lys		
	650		655		660
Arg Met Gln Gln	Gln Gln Glu Phe Asp	Glu Ser Phe Thr	Phe Lys		
	665		670		675
Pro Lys Arg Pro	Lys Leu Ser Thr Ala	Ala Ala Glu Ile	Leu Gln		
	680		685		690
Leu Glu Glu Asp	Ser Thr Ser Gly Glu	Gly Lys Ser Pro	Leu Gln		
	695		700		705
Gln Glu Glu Lys	Glu Val Glu Val Leu	Gln Thr Pro Thr	Val Gln		
	710		715		720
Leu Gln Leu Gln	Arg Asn Ile Gln Glu	Gln Leu Ala Ile	Lys Gln		
	725		730		735
Gln Leu Gln Phe	Leu Leu Leu Gln Leu	Leu Lys Thr Gln	Ser Asn		
	740		745		750
Leu His Leu Asn	Pro Gln Phe Leu Ser	Pro Ser			
	755		760		

<210> 64

<211> 165 ¹⁵⁶

<212> PRT

<213> non-B, non-C, non-G hepatitis virus

<400> 64

Met His Phe Arg	Arg Val Arg Ala	Lys Arg Lys Leu	Leu Leu Gln
1	5	10	15
Ala Val Arg Ala	Pro Pro Lys Ala	Pro Ala Met Ser	Phe Thr Thr
	20	25	30
Pro Thr Ile Asn	Ala Gly Ile Arg	Glu Gln Gln Trp	Phe Glu Ser
	35	40	45
Thr Leu Arg Ser	His His Ser Phe	Cys Gly Cys Gly	Asp Pro Val
	50	55	60
Leu His Phe Thr	Asn Leu Ala Thr	Arg Phe Asn Tyr	Leu Pro Ala
	65	70	75
Thr Ser Ser Pro	Leu Asp Pro Pro	Gly Pro Ala Pro	Arg Gly Arg
	80	85	90
Pro Ala Leu Arg	Arg Leu Pro Ala	Leu Pro Ser Ala	Pro Ala Thr
	95	100	105
Pro Ser Arg Glu	Leu Ala Trp Pro	Thr Gly Ser Glu	Gly Gly Ala

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	110	115	120
Gly Gly Arg Gly Ala Gly Gly Glu Gly Gly Ala Ala Val Glu Gly			
	125	130	135
Asp Tyr Arg Glu Glu Glu Leu Asp Glu Leu Phe Ala Ala Leu Glu			
	140	145	150
Glu Asp Ala Asn Gln Gly			
	155		